IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)
	) Atty. Docket: **ASAIN 0103**
Kiwamu KASE et al.	)
	) Group Art Unit:
Serial No. (Not Yet Assigned)	)
	) Examiner:
Filed: Herewith	)
	) Date: January 30, 2002
For: STORAGE METHOD OF SUBSTAN-	)
TIAL DATA INTEGRATING SHAPE	)
AND PHYSICAL PROPERTIES	)

PRELIMINARY AMENDMENT (A)

BOX: PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D. C. 20231

Sir:

Prior to calculating the filing fee, kindly amend the above-captioned application as follows:

IN THE ABSTRACT:

At page 21, kindly replace the ABSTRACT OF THE DISCLOSURE with the following:

A method of storing substantial data integrating shape and physical properties comprising (A) inputting external data 12 consisting of boundary data of an object 1, (B) dividing, by Octree division, the external data into cubical cells 13 which boundary surfaces are orthogonal to each other, and (C) storing the values of various physical properties for each of the cells. Furthermore, in step (B), each of the divided cells 13 is classified to internal cells 13a located in the interior of the object, external cells 13b in the exterior thereof and boundary cells 13c including boundary surfaces. Thereby, substantial data integrating shape and physical properties can be stored in small storage capacity, thus enabling the integration of CAD and simulation.

REMARKS

With the above amendments, the Abstract has been amended in compliance with 37 C.F.R. § 1.72. A marked-up version showing the changes made to the Abstract is attached for the convenience of the Examiner.

Questions are welcomed by the below-signed attorney for applicants.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Abstract:

~~There is disclosed a~~A method of storing substantial data integrating shape and physical properties comprising ~~an external data input step~~ (A) ~~for~~ inputting external data 12 consisting of boundary data of an object 1, ~~an Octree division step~~ (B) ~~for~~ dividing, by Octree division, the external data into cubical cells 13 which boundary surfaces are orthogonal to each other, and ~~a cell data storage step~~ (C) ~~for~~ storing the values of various physical properties for each of the cells. Furthermore, in ~~the Octree division~~ step (B), each of the divided cells 13 is classified to internal cells 13a located in the interior of the object, external cells 13b in the exterior thereof and boundary cells 13c including boundary surfaces. Thereby, substantial data integrating shape and physical properties can be stored in small storage capacity, ~~whereby it is possible to manage shape, structure, physical-property information, and history of matter in a unified way, and to manage data associated with a series of processes of from design to work, assembly, test and evaluation under the same data,~~ thus enabling the integration of CAD and simulation.